REMARKS

[0003] Applicant respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1-4, 7, 9-15, 17-20, 24-28, 31, 33, and 35-38 are presently pending. Claims 1-2, 7, 9, 15, 20, 25-28, 31, 33, 35-38 are amended herein. Claims 5-6, 8, 16, 21-23, 29-30, 32, and 34 are withdrawn or cancelled herein. No new claims are added herein.

Statement of Substance of Interview

[0004] The Examiner graciously talked with me—the undersigned representative for the Applicant—on Tuesday, March 11, 2008. The Applicant greatly appreciates the Examiner's willingness to talk. Such willingness is invaluable to both of us in our common goal of an expedited prosecution of this patent application.

[0005] During the interview, I discussed how the claims differed from the cited references, namely Dunagan and Harvey. Without conceding the propriety of the rejections and in the interest of expediting prosecution, I also proposed several possible clarifying amendments.

[0006] The Examiner was receptive to the proposals, and I understood the Examiner to indicate that the proposed clarifying claim amendments would overcome the § 101 rejections. The Examiner also indicated that he would need to review the cited art more carefully and potentially do another search, and

requested that the proposed amendments be presented in writing in regard to the §§ 102 and 103 rejections.

[0007]   Applicant herein amends the claims in the manner discussed during the interview. Accordingly, Applicant submits that the pending claims are allowable over the cited art of record for at least the reasons discussed during the interview.

Formal Request for an Interview

[0008]   If the Examiner's reply to this communication is anything other than allowance of all pending claims, then I formally request an interview with the Examiner. I encourage the Examiner to call me—the undersigned representative for the Applicant—so that we can talk about this matter so as to resolve any outstanding issues quickly and efficiently over the phone.

[0009]   Please contact me or my assistant to schedule a date and time for a telephone interview that is most convenient for both of us. While email works great for us, I welcome your call to either of us as well. Our contact information may be found on the last page of this response.

Claim Amendments

[0010]   Without conceding the propriety of the rejections herein and in the interest of expediting prosecution, Applicant amends claims 1-2, 7, 9, 15, 20, 25-28, 31, 33, 35-38 herein. Applicant amends these claims to clarify claimed features. Such amendments are made to expedite prosecution and more quickly identify allowable subject matter. Such amendments are merely intended to

clarify the claimed features, and should not be construed as further limiting the claimed invention in response to the cited references.

Substantive Matters

Claim Rejections under § 101

[0011]   Claims 25-38 are rejected under 35 U.S.C. § 101. Applicant respectfully traverses this rejection. Furthermore, in light of the amendments presented herein, the Applicant respectfully submits that these claims comply with the patentability requirements of §101 and that the §101 rejections should be withdrawn. Applicant further asserts that these claims are allowable. Accordingly, Applicant asks the Examiner to withdraw these rejections.

[0012]   If the Examiner maintains the rejection of these claims, then Applicant requests additional guidance as to what is necessary to overcome the rejection.

Claim Rejections under §§ 102 and 103

[0013]   The Examiner rejects claims 1-6, 15-19, and 25-30 under § 102. For the reasons set forth below, the Examiner has not shown that the cited references anticipate the rejected claims.

[0014]   In addition, the Examiner rejects claims 7-14, 20-24, and 31-38 under § 103. For the reasons set forth below, the Examiner has not made a prima facie case showing that the rejected claims are obvious.

[0015] Accordingly, Applicant respectfully requests that the § 102 and § 103 rejections be withdrawn and the case be passed along to issuance.

[0016] The Examiner's rejections are based upon the following references alone and in combination:

- **Dunagan:** *Dunagan, et al.,* US Patent Publication No. 200/5938503 (Published April 21, 2005);

- **Harvey:** *Harvey, et al.,* US Patent Publication No. 2007/5938503 (Published August 31, 2007).

Overview of the Application

[0017] The Application describes content-based routing of messages in an overlay network. Routing nodes receive messages and return routing policies to the sending node based at least in part on content of the message. The routing policies comprise instructions for redirecting similar messages to other nodes in the overlay network. The sending node determines which policies to apply to the message. The sending node may then iterate through the routing policies, modifying the address in the message according to instructions included in the routing policies so that the message is sent, e.g., directly to the intended destination. Accordingly, the sending node is able to bypass one or more intermediary nodes to reduce latency in the overlay network. (Application, Abstract)

Cited References

[0018]   The Examiner cites Dunagan as the primary reference in the anticipation- and obviousness-based rejections. The Examiner cites Harvey as a secondary reference in the obviousness-based rejections.

Dunagan

[0019]   Dunagan describes a callable, fault-tolerant, federated event notification method, wherein clients express interest in a topic by subscribing to event notifications which are delivered to all current topic-subscribers. Event notifications are disseminated by a multicast tree that does not require participation by unwilling nodes. The multicast tree is constructed so that nodes belonging to the organization owning the tree do not rely on nodes outside the organization to forward message traffic. Event notifications are delivered using redundant tree-based application-level multicast to ensure reliable delivery. (Dunagan, Abstract)

Harvey

[0020]   Harvey describes using skip nets to build and maintain overlay networks for peer-to-peer systems. A skip net is a distributed data structure that can be used to avoid some of the disadvantages of distributed hash tables by organizing data by key ordering. Skip nets can use logarithmic state per node and probabilistically support searches, insertions and deletions in logarithmic time. (Harvey, Abstract)

Anticipation Rejections

[0021]   Applicant submits that the anticipation rejections are not valid because, for each rejected claim, no single reference discloses each and every element of that rejected claim.[1]   Furthermore, the elements disclosed in the single reference are not arranged in the manner recited by each rejected claim.[2]

Based upon Dunagan

[0022]   The Examiner rejects claims 1-6, 15-19, and 25-30 under 35 U.S.C. § 102(e) as being anticipated by Dunagan. Applicant respectfully traverses the rejection of these claims. Based on the reasons given below, Applicant asks the Examiner to withdraw the rejection of these claims.

Independent Claim 1

[0023]   Applicant submits that Dunagan does not anticipate this claim because it does not disclose the following elements as recited in this claim (with emphasis added):

- "generating a **routing policy** for a sending node based at least in part on content of the message, wherein the routing policy comprises

---

[1] "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); also see MPEP §2131.

[2] See *In re Bond,* 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

instructions for redirecting messages based at least in part on the content of the message;

- "**returning the routing policy to the sending node**; and
- **forwarding the message to another node** in the overlay network."

[0024] The Examiner indicates (Action, p. 3) the following with regard to this claim:

Regarding claim 1, Dunagan teaches a method comprising: receiving a message at a routing node in an overlay network (Paragraph [0005], Node in the overlay network receives a message.); and generating a routing policy for another node based at least in part on content of the message (Paragraph [0005], The node generates a routing policy by looking at the ID of the intended recipient, which is contained in the message.).

[0025] The Examiner relies on paragraph 5 for disclosure of a "routing policy" as recited in claim 1. However, paragraph 5, in pertinent part, discloses the following:

"Each node in the overlay network maintains a routing table listing a subset of the IDs. Each entry in the routing table maps a [unique] numeric ID to the associated node's IP address. When a node in the overlay network receives a message, it looks at the ID of the intended recipient, which is contained in the message, finds the numerically closest ID listed in its routing table, and then forwards the message to the associated node."

[0026] In this Action, the Examiner equates "routing table" as found in Dunagan with a "routing policy" as recited in claim 1. The Applicant respectfully disagrees. A "policy" as recited in claim 1 "comprises instructions for redirecting messages" which is distinct and different from a lookup table. There are no

instructions in a table. Because of at least this explicit and substantive difference, claim 1 is allowable over Dunagan.

[0027] Further, claim 1 as amended comprises elements and features as previously found in claims 5 and 6. The Examiner relies on paragraphs 16 and 14, respectively, for a disclosure of returning a routing policy to a sending node, and forwarding a message to another node.

[0028] Paragraph 16, in pertinent part, states:

> "When a node belonging to the root organization receives the message, that node then sends the last node in the first organization a confirmation. If the last node does not receive the confirmation, then the last node picks a new node from its routing table (preferably to a different third party organization than the one it chose before) and repeats the process. Alternatively, a node may forward the subscription request message directly to a well-known node in the root organization."

[0029] In this Action, the Examiner equates sending "a confirmation" as found in Dunagan, paragraph 16, with sending a "routing policy" to a sending node as recited in claim 1, as amended. The Applicant respectfully disagrees. The plain meaning of the word confirmation does not mean a "routing policy" which "comprises instructions for redirecting messages" as recited in claim 1. For at least this different, claim 1 is allowable over Dunagan.

[0030] Consequently, as can be seen, Dunagan does not disclose all of the claimed elements and features of claim 1. For at least this reason, claim 1 is not anticipated by Dunagan. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 2-4

[0031] These claims ultimately depend upon independent claim 1. As discussed above, claim 1 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

[0032] Consequently, Dunagan does not disclose all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Independent Claim 15

[0033] Applicant submits that Dunagan does not anticipate this claim because it does not disclose the following elements as recited in this claim, as amended, (with emphasis added):

- "**routing table** operatively associated with the routing node; and
- a message processor at the routing node, the message processor **generating a routing policy** for a sending node of the message, wherein the routing policy **comprises instructions for redirecting messages** based at least in part on the content of the **body of the message,** the message processor generating the routing policy based on entries in the routing table."

[0034] The Examiner indicates (Action, p. 4) the following with regard to this claim:

Regarding claim 15, Dunagan teaches a system comprising: a routing node receiving a message in an overlay network (Paragraph [0005], node in the overlay network receives a message.); and a message processor at the routing node (Paragraph [0056], Each computer in the multicast group is a node. Paragraph [0041], The computer has a processing unit. The "message processor" is the processing unit of each node), the message processor generating a routing policy for another node of the message based at least in part on content of the message (Paragraph [0005], The node generates a routing policy by looking at the ID of the intended recipient, which is contained in the message.).

[0035] The Examiner relies on paragraph 5 for disclosure of a "routing table" as recited in claim 15, as amended. However, the Examiner also relies on paragraph 5 for a "routing policy." Paragraph 5, in pertinent part, states:

> "Each node in the overlay network maintains a routing table listing a subset of the IDs. Each entry in the routing table maps a [unique] numeric ID to the associated node's IP address. When a node in the overlay network receives a message, it looks at the ID of the intended recipient, which is contained in the message, finds the numerically closest ID listed in its routing table, and then forwards the message to the associated node."

[0036] In this Action, the Examiner equates a "routing table" as found in Dunagan with both a "routing policy" and a "routing table" as recited in claim 15, as amended. The Applicant respectfully disagrees. A "routing table" cannot be both a "table" and a "policy" as recited in claim 15. A "policy" as recited in claim

15 "comprises instructions for redirecting messages" which is distinct and different from a lookup table. There are no instructions in a table. Because of at least this explicit and substantive difference, claim 15 is allowable over Dunagan.

[0037]   Further, claim 15 as amended recites a routing policy based on the "body" of a message. The Examiner cites to paragraph 5 of Dunagan wherein it states that the entries of the routing table are matched to the "ID" of an "intended recipient." Those with knowledge in the art understand that an ID is not typically part of the "body" of a message. Thus, the Applicant respectfully disagrees that paragraph 5 anticipates this element or feature of claim 15 as amended. For at least this additional different, claim 15 is allowable over Dunagan.

[0038]   Consequently, as can be seen, Dunagan does not disclose all of the claimed elements and features of claim 15 as amended. For at least this reason, claim 15 is not anticipated by Dunagan. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 17-19

[0039]   These claims ultimately depend upon independent claim 15. As discussed above, claim 15 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

Serial No.: 10/784,146
Atty Docket No.: MS1-1854US   -21-   lee&hayes   The Business of IP™
Atty/Agent: John C. Meline   www.leehayes.com 509.324.9256

[0040]   Consequently, Dunagan does not disclose all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Independent Claim 25

[0041]   Applicant submits that Dunagan does not anticipate this claim because it does not disclose the following elements as recited in this claim, as amended, (with emphasis added):

- **"generating a routing policy** for a sending node of the message, wherein the routing policy comprises instructions for redirecting messages **based at least in part on the content of the body** of the message;
- **"returning the routing policy** to the sending node; and
- **"forwarding the message to another node in the overlay network."**

[0042] The Examiner indicates (Action, p. 6) the following with regard to this claim:

Regarding claim 25, Dunagan teaches a computer program product encoding a computer program for executing on a computer system a computer process, the computer process comprising: receiving a message at a routing node in an overlay network (Paragraph [0005], node in the overlay network receives a message.); and generating a routing policy for another node of the message based at least in part on content of the message (Paragraph [0005], The node generates a routing policy by looking at the ID of the intended recipient, which is contained in the message.).

[0043] The Examiner relies on paragraph 5 for disclosure of a "routing policy" as recited in claim 25, as amended. As shown above, paragraph 5, does not state "routing policy," but "routing table."

[0044] In this Action, the Examiner equates a "routing table" as found in Dunagan with a "routing policy" as recited in claim 25, as amended. The Applicant respectfully disagrees. A "routing table" cannot be a "policy" as recited in claim 25. A "policy" as recited in claim 25 "comprises instructions for redirecting messages" which is distinct and different from a lookup table. There are no instructions in a table. Because of at least this explicit and substantive difference, claim 25 is allowable over Dunagan.

[0045] Further, claim 25 as amended also recites re-directing a message based on the "body" of the message. The Examiner cites to paragraph 5 of Dunagan wherein it states that the entries of the routing table are matched to

the "ID" of an "intended recipient." Those with knowledge in the art understand that an ID is not typically part of the "body" of a message. Thus, the Applicant respectfully disagrees that paragraph 5 anticipates this element or feature of claim 25 as amended. For at least this additional different, claim 25 is allowable over Dunagan.

[0046]   Consequently, as can be seen, Dunagan does not disclose all of the claimed elements and features of claim 25 as amended. For at least this reason, claim 25 is not anticipated by Dunagan. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 26-28

[0047]   These claims ultimately depend upon independent claim 25. As discussed above, claim 25 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

[0048]   Consequently, Dunagan does not disclose all of the elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Obviousness Rejections

Lack of *Prima Facie* Case of Obviousness (MPEP § 2142)

[0049]   Applicant disagrees with the Examiner's obviousness rejections. Arguments presented herein point to various aspects of the record to demonstrate that all of the criteria set forth for making a prima facie case have not been met.

Based upon Dunagan in view of Harvey

[0050]   The Examiner rejects claims 7-14, 20-24, and 31-38 under 35 U.S.C. § 103(a) as being unpatentable over Dunagan in view of Harvey. Applicant respectfully traverses the rejection of these claims and asks the Examiner to withdraw the rejection of these claims.

Independent Claim 7

[0051]   Applicant submits that the combination of Dunagan and Harvey does not render this claim obvious because at least the following elements or features as recited in this claim (with emphasis added) are not found within these references, either alone or in combination:

- "identifying by a node at least one routing policy for a message, wherein the **routing policy** comprises instructions for redirecting messages based at least **in part on the content of the body of the message;**

- "changing an address in the message to **bypass at least one node** in an overlay network based on the at least one routing policy; and
- issuing the message **directly to a destination node** in the overlay network."

[0052] The Examiner indicates (Action, pp. 8-9) the following with regard to this claim:

Regarding claim 7, Dunagan teaches a method comprising: identifying at least one routing policy for a message based on content of the message (Dunagan, Paragraph [0005], The node generates a routing policy by looking at the ID of the intended recipient, which is contained in the message.); and changing an address in the message (Dunagan, Paragraph [0016], When the node belonging to the root organization receives a message from the first organization the address is changed from the node belonging to the root organization to the last node in the first organization.) Dunagan does not teach but Harvey teaches to bypass at least one node in an overlay network based on the at least one routing policy (Harvey, paragraph [0065], Nodes in an overlay network are sorted into a linked list. When routing a message to its final destination, multiple rings are used that "skip" over various members of the sorted list of nodes.).

[0053] In this Action, the Examiner equates a "routing table" as found in Dunagan with a "routing policy" as recited in claim 7, as amended. The Applicant respectfully disagrees.

[0054] Dunagan does not disclose, teach or suggest a "routing policy." Dunagan teaches a lookup "table" which cannot be a "policy" as recited in claim

7. A "policy" as recited in claim 7 "comprises instructions for redirecting messages" which is distinct and different from a table. There are no instructions in a table. Because of at least this explicit and substantive difference, claim 7 is allowable over Dunagan.

[0055]   Further, claim 7 as amended also recites re-directing a message based on the "body" of the message. The Examiner cites to paragraph 5 of Dunagan (and nowhere in Harvey) wherein it states that the entries of the routing table are matched to the "ID" of an "intended recipient." Those with knowledge in the art understand that an ID is not typically part of the "body" of a message. Thus, the Applicant respectfully disagrees that paragraph 5 anticipates this element or feature of claim 7 as amended. For at least this additional different, claim 7 is allowable over Dunagan and Harvey.

[0056]   Claim 7, as amended, recites issuing a message "directly to a destination node in the overlay network." For this element or feature, the Examiner relies on paragraph 5 of Dunagan (Action, p. 9, in reference to claim 8). In pertinent part, paragraph 5 states that when "a node in the overlay network receives a message," the node "looks at the ID of the intended recipient, which is contained in the message, finds the numerically closest ID listed in its routing table, and then forwards the message to the associated node."

[0057]   The Examiner equates "closest ID listed" in a "routing table" as disclosed in Dunagan with issuing a message "directly to a destination node" as recited in claim 7, as amended. The Applicant respectfully disagrees. The "closest" node is not the same as a destination node. Thus, Dunagan cannot be

Serial No.: 10/784,146
Atty Docket No.: MS1-1854US   -27-   lee&hayes   The Business of IP™
Atty/Agent: John C. Meline   www.leehayes.com   509.324.9256

used to show this element or feature of claim 7. The Examiner does not refer to any passage of Harvey to teach or suggest this element. Consequently, the combination of Dunagan and Harvey does not disclose, teach or suggest this element or feature of claim 7, as amended. Thus, claim 7 is allowable over the combination of Dunagan and Harvey for at least the reason that the combination does not disclose, teach or suggest all of the features or elements of this claim. The Applicant respectfully requests the Examiner to withdraw the rejection of this claim.

Dependent Claims 9-14

[0058] These claims ultimately depend upon independent claim 7. As discussed above, claim 7 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

[0059] Claim 9 recites "iteratively applying by the node a plurality of routing policies to . . . [a] message." The Examiner relies on Dunagan, paragraph 13, (Action, p. 9) to teach or suggest this element or feature. Paragraph 13, in pertinent part, states that "messages are delivered in parallel across" trees of nodes. The Examiner states that each "node along the path applies its own routing policy" (Action, p. 10). The Examiner equates a series of nodes passing along messages as stated in Dunagan with a single node iteratively applying a plurality of routing policies" as recited in claim 9, as amended.

[0060]   The Applicant respectfully disagrees that these two concepts are the same. A series of nodes passing along messages is different from a single node operating on a single message by applying a plurality of routing policies to the message. Thus, claim 9 is allowable over the combination of Dunagan and Harvey for at least this additional reason. The Applicant respectfully asks the Examiner withdraw the rejection of claim 9.

Independent Claim 20

[0061]   Applicant submits that the combination of Dunagan and Harvey does not render this claim obvious because at least the following elements or features as recited in this claim (with emphasis added) are not found within these references, either alone or in combination:

- "at least one routing policy for a message, wherein the at least one **routing policy** is generated by at least one routing node in the overlay network, wherein the routing policy **comprises instructions for redirecting messages**;

- "a policy manager to identify the at least one routing policy to the messaging module based at least in part on content of the **body of the message**; and

- "a messaging module changing an address in the message at the sending node to **bypass at least one node** in an overlay network based on the at least one routing policy **so that the message is issued directly to a destination node** in the overlay network."

[0062] The Examiner indicates (Action, pp. 11-12) the following with regard to this claim:

Regarding claim 20, Dunagan teaches a system comprising: at least one routing policy for a message (Dunagan, Paragraph [0005], The node generates a routing policy by looking at the ID of the intended recipient, which is contained in the message.); and a messaging module changing an address in the message at the sending node (Dunagan, Paragraph [0016], When the node belonging to the root organization receives a message from the first organization the address is changed from the node belonging to the root organization to the last node in the first organization.) Dunagan does not teach but Harvey teaches to bypass at least one node in an overlay network based on the at least one routing policy (Harvey, paragraph [0065], Nodes in an overlay network are sorted into a linked list. When routing a message to its final destination, multiple rings are used that "skip" over various members of the sorted list of nodes.).

[0063] The Examiner relies on paragraph 5 for disclosure of a "routing policy" as recited in claim 20. However, paragraph 5, in pertinent part, discloses the following:

> "Each node in the overlay network maintains a routing table listing a subset of the IDs. Each entry in the routing table maps a [unique] numeric ID to the associated node's IP address. When a node in the overlay network receives a message, it looks at the ID of the intended recipient, which is contained in the message, finds the numerically closest ID listed in its routing table, and then forwards the message to the associated node."

[0064] In this Action, the Examiner equates a "routing table" as found in Dunagan with a "routing policy" as recited in claim 20, as amended. The Applicant respectfully disagrees.

[0065] Dunagan does not disclose, teach or suggest a "routing table." Dunagan teaches a lookup "table" which cannot be a "policy" as recited in claim 20. A "policy" as recited in claim 20 "comprises instructions for redirecting messages" which is distinct and different from a table. There are no instructions in a table. Because of at least this explicit and substantive difference, claim 20 is allowable over Dunagan.

[0066] Further, claim 20 as amended also recites re-directing a message based on the "body" of the message. The Examiner cites to paragraph 5 of Dunagan (and nowhere in Harvey) wherein it states that the entries of the routing table are matched to the "ID" of an "intended recipient." Those with knowledge in the art understand that an ID is not typically part of the "body" of a message. Thus, the Applicant respectfully disagrees that paragraph 5 anticipates this element or feature of claim 20 as amended. For at least this additional different, claim 20 is allowable over Dunagan and Harvey.

[0067] Claim 20, as amended, recites issuing a message "directly to a destination node in the overlay network." For this element or feature, the Examiner relies on paragraph 16 of Dunagan (Action, p. 12, in reference to claim 21). In pertinent part, paragraph 16 states:

> In particular, trees are constructed so that messages are disseminated from . . . the root of the tree directly to each organization containing subscriber nodes . . . The subscription

request message is passed . . . with each node checking to see if it is the last node . . . along the path to the root. When the subscription request reaches the last node . . . that last node modifies the subscription message to indicate that topic messages should be forwarded directly to it . . . When a node . . . receives the message, that node then sends . . . a confirmation. If the last node does not receive the confirmation, then the last node picks a new node from its routing table . . . and repeats the process. Alternatively, a node may forward the subscription request message directly to a well-known node in the root organization."

[0068]   This passage of Dunagan does not disclose, teach or suggest sending a message directly to its "destination." This passage appears to disclose the following: passing a message from node to node along a path, passing a "subscription request" from node to node, modifying a subscription message, sending a confirmation, picking a node from a routing table, and forwarding a subscription request message "directly to a well-known node." The Examiner appears to equate one or more of these items to a "destination node" as recited in claim 20, as amended. The Applicant respectfully disagrees.

[0069]   It appears that none of these listed items can be equated to issuing a message "directly to a destination node" in a network as recited in claim 20, as amended. As shown, there is no disclosure in paragraph 16 of Dunagan of a "destination" node. The Examiner does not refer to any passage of Harvey to teach or suggest this element. Consequently, the combination of Dunagan and Harvey does not disclose, teach or suggest this element or feature of claim 20, as amended. Thus, claim 20 is allowable over the combination of Dunagan and Harvey for at least the reason that the combination does not disclose, teach or

suggest this feature or element of this claim. The Applicant respectfully requests the Examiner to withdraw the rejection of claim 20.

Dependent Claim 24

[0070] This claim ultimately depends upon independent claim 20. As discussed above, claim 20 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, this claim may also be allowable for additional independent reasons.

Independent Claim 31

[0071] Applicant submits that the combination of Dunagan and Harvey does not render this claim obvious because at least the following elements or features as recited in this claim (with emphasis added) are not found within these references:

- "identifying at least one routing policy for a message, wherein the **routing policy comprises instructions for redirecting messages based at least in part on the content of the message;**
- changing an address in the message to **bypass at least one node** in an overlay network based on the at least one routing policy;
- issuing the message in the overlay network **directly to a destination node;** and

- **sending** the at least one **routing policy to a sending node** in the overlay network."

[0072]   The Examiner indicates (Action, pp. 13-14) the following with regard to this claim:

Regarding claim 31 Dunagan teaches a computer program product encoding a computer program for executing on a computer system a computer process, the computer process comprising: identifying at least one routing policy for a message based on content of the message (Dunagan, Paragraph [0005], The node generates a routing policy by looking at the ID of the intended recipient, which is contained in the message.); and changing an address in the message (Dunagan, Paragraph [0016], When the node belonging to the root organization receives a message from the first organization the address is changed from the node belonging to the root organization to the last node in the first organization.) Dunagan does not teach but Harvey teaches to bypass at least one node in an overlay network based on the at least one routing policy (Harvey, paragraph [0065], Nodes in an overlay network are sorted into a linked list. When routing a message to its final destination, multiple rings are used that "skip" over various members of the sorted list of nodes.).

[0073]   The Examiner relies on paragraph 5 for disclosure of a "routing policy" as recited in claim 20. However, paragraph 5, in pertinent part, discloses the following:

"Each node in the overlay network maintains a routing table listing a subset of the IDs. Each entry in the routing table maps a [unique] numeric ID to the associated node's IP address. When a node in the overlay network receives a message, it looks at the ID of the intended recipient, which is contained in the message, finds the

Serial No.: 10/784,146
Atty Docket No.: MS1-1854US
Atty/Agent: John C. Meline
-34-
lee&hayes   The Business of IP™
www.leehayes.com   509 324 9256

numerically closest ID listed in its routing table, and then forwards the message to the associated node."

[0074]   In this Action, the Examiner equates a "routing table" as found in Dunagan with a "routing policy" as recited in claim 31, as amended. The Applicant respectfully disagrees.

[0075]   Dunagan does not disclose, teach or suggest a "routing table." Dunagan teaches a lookup "table" which cannot be a "policy" as recited in claim 20. A "policy" as recited in claim 31 "comprises instructions for redirecting messages" which is distinct and different from a table. There are no instructions in a table. Because of at least this explicit and substantive difference, claim 31 is allowable over Dunagan.

[0076]   Further, claim 31 as amended also recites re-directing a message based on the "body" of the message. The Examiner cites to paragraph 5 of Dunagan (and nowhere in Harvey) wherein it states that the entries of the routing table are matched to the "ID" of an "intended recipient." Those with knowledge in the art understand that an ID is not typically part of the "body" of a message. Thus, the Applicant respectfully disagrees that paragraph 5 anticipates this element or feature of claim 31 as amended. For at least this additional different, claim 31 is allowable over Dunagan and Harvey.

[0077]   Claim 31, as amended, recites issuing a message "directly to a destination node in the overlay network." For this element or feature, the Examiner relies on paragraph 5 of Dunagan (Action, p. 14, in reference to claim 32). However, paragraph 5, in pertinent part, discloses the following:

"Each node in the overlay network maintains a routing table listing a subset of the IDs. Each entry in the routing table maps a [unique] numeric ID to the associated node's IP address. When a node in the overlay network receives a message, it looks at the ID of the intended recipient, which is contained in the message, finds the numerically closest ID listed in its routing table, and then forwards the message to the associated node."

[0078]   From this passage, the Examiner equates sending a message to "the numerically closest ID" with a "destination node" as recited in claim 31, as amended. The Applicant respectfully disagrees. Just because a node may have the "closest ID" in a table does not make it a "destination" as recited in claim 31. Because of at least this explicit and substantive difference, claim 31 is allowable over Dunagan and Harvey.

[0079]   Further, claim 31 as amended also recites re-directing a message based on the "body" of the message. The Examiner cites to paragraph 5 of Dunagan (and nowhere in Harvey) wherein it states that the entries of the routing table are matched to the "ID" of an "intended recipient." Those with knowledge in the art understand that an ID is not typically part of the "body" of a message. Thus, the Applicant respectfully disagrees that paragraph 5 anticipates this element or feature of claim 31 as amended. For at least this additional different, claim 31 is allowable over Dunagan and Harvey.

[0080]   The Applicant respectfully requests the Examiner to withdraw the rejection of this claim for at least the reason that the references Dunagan and Harvey do not disclose, teach or suggest all of the elements as recited in claim 31, as amended.

Dependent Claims 33, and 35-38

[0081] These claims ultimately depend upon independent claim 31. As discussed above, claim 31 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. The Applicant respectfully asks the Examiner to withdraw the rejection of these claims where its base claim is allowed. Additionally, some or all of these claims may also be allowable for additional independent reasons.

[0082] Claim 33 recites "iteratively applying by the node a plurality of routing policies to . . . [a] message." The Examiner relies on Dunagan, paragraph 13, (Action, p. 15) to teach or suggest this element or feature. Paragraph 13, in pertinent part, states that "messages are delivered in parallel across" trees of nodes. The Examiner states that each "node along the path applies its own routing policy" (Action, p. 15). The Examiner equates a series of nodes passing along messages as stated in Dunagan with a single node iteratively applying a plurality of routing policies" as recited in claim 33, as amended.

[0083] The Applicant respectfully disagrees that these two concepts are the same. A series of nodes passing along messages is different from a single node operating on a single message by applying a plurality of routing policies to the message. Thus, claim 33 is allowable over the combination of Dunagan and Harvey for at least this additional reason. The Applicant respectfully asks the Examiner to withdraw the rejection of claim 33 for this additional reason.

[0084] Claim 35, as amended, recites "sending a plurality of routing policies to a sending node from a plurality of routing nodes in the overlay network." The

Examiner relies on Dunagan, paragraph 77, (Action, p. 15) to teach or suggest this element or feature. Paragraph 77, in pertinent part, states:

> "When a node . . . tree discovers that it has become disconnected . . . . it reconnects . . . by . . . sending out a new subscription message . . . [The] routing semantics of the overlay network will result in all these subscription messages being sent to that overlay node."

[0085] The Examiner states that the subscription messages "denote routing policy to the node since it must now function as a root node." (Action, p. 15). The Examiner equates a "subscription message" as found in Dunagan to a "routing policy" as recited in claim 35, as amended.
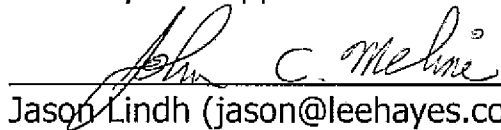
[0086] The Applicant respectfully disagrees that these two concepts are the same. A node which must send out "subscription messages" to a plurality of nodes from a single root node is different than a "routing policy" which is applied to route a single message to a destination. Thus, claim 35 is allowable over the combination of Dunagan and Harvey for at least this additional reason. The Applicant respectfully asks the Examiner to withdraw the rejection of claim 35 for this additional reason.

Conclusion

[0087] All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the **Examiner is urged to contact me before issuing a subsequent Action**. Please call or email me or my assistant at your convenience.

Respectfully Submitted,

Lee & Hayes, PLLC
Attorneys for Applicant

_____ Dated: 2008-03-20

Jason Lindh (jason@leehayes.com; x215)
Registration No. 59,090
John Meline (johnm@leehayes.com; x257)
Registration No. 58,280

Assistant: Megan Arnold (megan@leehayes.com; x240)
Customer No. 22801

Telephone: (509) 324-9256
Facsimile: (509) 323-8979
www.leehayes.com